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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/771,722	02/04/2004	Fritz Leber	ZAHFRI P592US	4959
20210	7590	08/09/2005	EXAMINER	
DAVIS & BUJOLD, P.L.L.C. FOURTH FLOOR 500 N. COMMERCIAL STREET MANCHESTER, NH 03101-1151			BONCK, RODNEY H	
			ART UNIT	PAPER NUMBER
			3681	

DATE MAILED: 08/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/771,722

Applicant(s)

LEBER, FRITZ

Examiner

Rodney H. Bonck

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17-20, 22-24, 26, and 28-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 17-20, 23, 24, 26 and 28-39 is/are rejected.
- 7) ☒ Claim(s) 22 and 40 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 July 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The following action is in response to the proposed amendment-after-final received July 28, 2005. This Office action applies a new ground of rejection and, accordingly, the finality of the previous Office action is withdrawn and entry of the proposed amendment is approved.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 30 and 35 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It appears that language has been omitted from these claims. The claims call for a pressure sensor for detecting "at least one of a piston pressure". This would imply an alternative to sensing piston pressure, but no alternative is given.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

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the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 17-20, 23, 26, 29, 32, 33, 34, and 37-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hill(Great Britain 870,863) in view of Briski('262). Hill discloses a hydrodynamic converter comprising a pump 11, a turbine 12, and a stator 13. The pump is detachably connected to the engine via a primary clutch 31 in the transmission. The clutch connects the input from the engine to pump shell 11A. The clutch 31 is engaged by spring force and released by fluid pressure. Reduced pressure behind piston 43 would result in clutch engagement from the force of the spring. The same oil is apparently used in Hill for the converter and for clutch actuation. Inwardly directed spline teeth on the outer border of the clutch can be used for speed measurement. There does not appear to be a provision in Hill for converter oil to flow through the primary clutch. Briski discloses a hydrodynamic converter comprising a pump 57, a turbine 58, and a stator 59. The clutch 17 connects the pump hub 62 to the engine via converter shell 44,46,48. Briski provides an opening 111 for the passage of converter oil to flow through the clutch 17 and into the space between shell 46 and pump 57. It would have been obvious to provide a passage for the flow of converter oil through the clutch 17 of Hill, the motivation being to cool the clutch.

Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hill(GB '863) in view of Briski('262) as applied to claims 17-20, 23, 26, 29, 32, 33, 34, and 37-39 above, and further in view of Moorman et al.(US 2003/0111314 A1). The clutch of Hill

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does not include a baffle plate to form a centrifugal compensation chamber. The Moorman et al. device discloses a clutch wherein a baffle plate 48 is provided for rotation-pressure compensation. It would have been obvious to carry this teaching to the Hill device, the motivation being to eliminate the effects of centrifugal force on the fluid.

Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hill(GB '863) in view of Briski('262) as applied to claims 17-20, 23, 26, 29, 32, 33, 34, and 37-39 above, and further in view of Fujioka('242). It is unclear whether the Hill device has any pressure sensors. Fujioka discloses that it has been known to use pressure sensors to control pressure in a torque converter and associated clutches. It would have been obvious to carry this teaching to the Hill device, providing pressure sensors, the motivation being to accurately control the pressure of the converter and the clutches.

Claims 30 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hill(GB '863) in view of Briski('262) as applied to claims 17-20, 23, 26, 29, 32, 33, 34, and 37-39 above, and further in view of Holbrook et al.('620). This Hill device lacks the speed sensor and pressure sensor called for in this claim. The Holbrook et al. device teaches controlling a clutch with the use of pressure sensors and speed sensors (see column 11, lines 29-54 and column 27, lines 36-50). It would have been obvious to incorporate such sensors in the Hill device, the motivation being to provide more accurate control of clutch engagement.

Claims 31 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hill(GB '863) in view of Briski('262) as applied to claims 17-20, 23, 26, 29, 32, 33, 34, and 37-39 above, and further in view of Lysholm et al.('684). The Hill device does not appear to include a lockup clutch. The Lysholm et al. device discloses (Fig. 2) a hydrodynamic converter comprising a pump 110, turbine 120, and a stator 124. The pump is detachably connected to the engine via a clutch 100 in the transmission. The clutch connects the engine input on shaft 92 to the pump hub 106 via shell 108. Internal spline teeth on the outer border of the clutch can be used for speed measurement. The Lysholm et al. device includes a lock-up clutch at 98. It would have been obvious to similarly include a lockup clutch in the Hill device, the motivation being to provide improved efficiency by eliminating converter slip.

Allowable Subject Matter

Claims 22 and 40 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

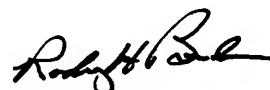
Response to Arguments

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rodney H. Bonck whose telephone number is (571) 272-7089. The examiner can normally be reached on Monday-Friday 7:00AM - 3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles A. Marmor can be reached on (571) 272-7095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Rodney H. Bonck
Primary Examiner
Art Unit 3681

rhb
August 5, 2005

Approved
8/7/05
OPIE
JUL 28 2005
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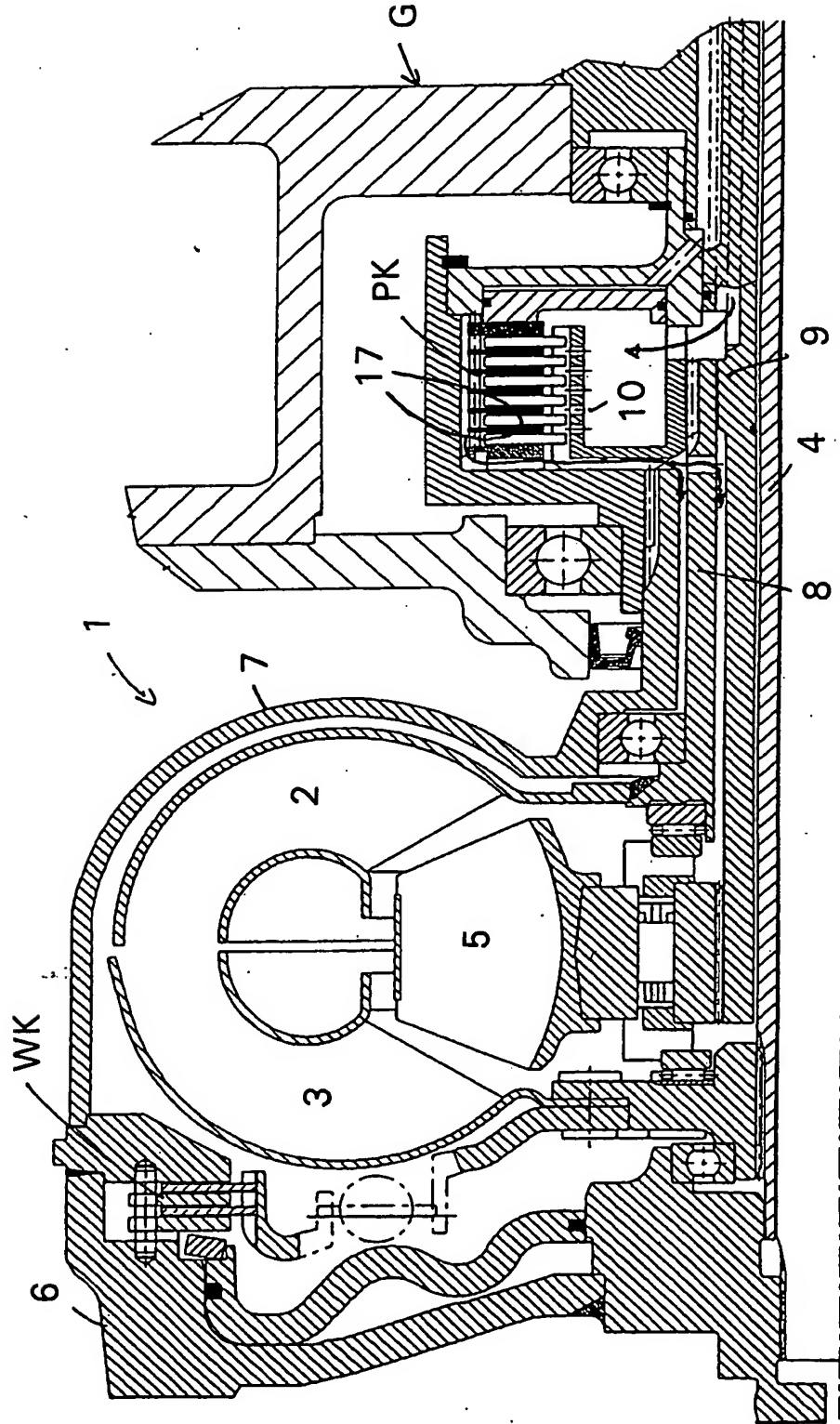


Fig. 2